

[18 April, 2001]

RAJYA SABHA

Cost of Solar Energy Vis-A-Vis Fossil Fuel

***3556. SHRI P.K. MAHESHWARI:** Will the Minister of NON-CONVENTIONAL ENERGY SOURCES be pleased to state:

- (a) whether the scientists in the field of material science who belong to the Indian Association for the cultivation of science have made a demand to Government in the recently concluded conference of the Indian Science Congress for speeding up the initiatives in the direction of adopting the fossil fuel as an alternative of petrol and diesel;
- (b) whether the solar energy is four to five times costly in comparison to fossil fuel;
- (c) whether the solar power, if produced at large scale by using new techniques will be cheaper in comparison to power produced through the Grid; and
- (d) if so, the steps Government have considered to take in this regard?

THE MINISTER OF STATE OF THE MINISTRY OF NON-CONVENTIONAL ENERGY SOURCES (SHRI M. KANNAPPAN): (a) In the recently held seminar of the Indian Science Congress, a physicist from the Indian Association for Cultivation of Science stated in his lecture that developing countries like India, which have high solar insolation and meagre reserves of fossil fuels, must take urgent steps for large scale development and application of solar electricity. There was no reference in the lecture about adoption of fossil fuel as an alternative of petrol and diesel which are themselves fossil fuels.

(b) The physicist in his lecture has also stated that at the present level of technology, solar electricity produced through the photovoltaic conversion route is 4-5 times costlier than the electricity obtained from conventional fossil fuels. This is generally

*Original notice of the Question was received in Hindi.

true. Depending on solar system's configuration and financing arrangements, the cost of solar electricity can be even higher.

(c) and (d) It is generally believed that new technologies such as thin film solar cells and large volume production can lead to lower initial cost of photovoltaic power systems. This could in turn lead to a cost of electricity which is comparable to that from the grid. In view of this potential, the Ministry of Non-Conventional Energy Sources has been supporting development of thin film solar cells based on amorphous silicon, polycrystalline silicon, Cadmium Telluride and Copper Indium Diselenide materials. Research projects have been supported by the Ministry in these areas at the Indian Association for Cultivation of Science, Kolkata; Indian Institute of Science, Bangalore; Indian Institute of Technology, Delhi; National Physical Laboratory, New Delhi; Jadavpur University, Kolkata and Cochin University. The Ministry has also started a soft loan scheme for supporting the establishment of manufacturing facilities for solar cells and silicon material which can lead to lower production costs.

Coconut Oil as Cheaper Substitute to Petrol and Diesel

3557. SHRI K.M. SAIFULLAH: Will the Minister of NON-CONVENTIONAL ENERGY SOURCES be pleased to state:

- (a) whether Coconut Oil offers a cheap substitute to Petrol and Diesel as found out by a Thai farmer;
- (b) whether Government will tap its potential and undertake research to help boosting rural economy; and
- (c) if so, the details thereof?

THE MINISTER OF STATE OF THE MINISTRY OF NON-CONVENTIONAL ENERGY SOURCES (SHRI M. KANNAPPAN): (a) to (c) Coconut oil is primarily used as an edible oil and also as a base for various pharmaceuticals, especially ayurveda formulations. Use of Coconut oil to substitute petrol and diesel is not a cheaper option due to its higher price in India.